



INTEGRATING GOVERNMENT AND CONTRACTOR OPERATIONS



Advanced Amphibious Assault Vehicle (AAAV) Program

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AGENDA



- Program Evolution and Milestones
- Mission and System Descriptions
- Program Schedule
- Pillars of Government and Contractor Integration
 - Pillar #1: Command/Management Philosophy
 - Pillar #2: Personnel Organization/Integrated Product Teams
 - Pillar #3: Co-Location
 - Pillar #4: Information Technology
- Questions



AAAV...REVOLUTIONIZING EXPEDITIONARY MANEUVER WARFARE



Past:

- **WWII Technology & Doctrine**

- **Deficiencies:**

- Tactical Mobility
- Close Combat
- Command & Control

New System Validation:

- **Three AOA's/COEA's**
- **Comprehensive Whole Systems Trade Study**

- 15 Years of Technology Development**
- 23 Awards Including Two Packard Awards**

Future:

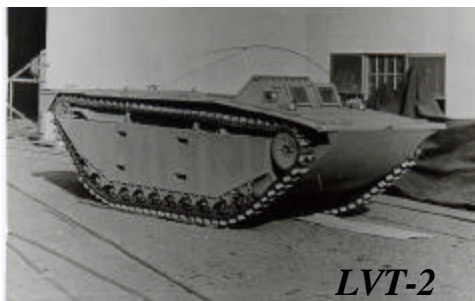
- **Operational Reach - Land and Water Maneuver**
- **Seamless Maneuver**
- **Precision Lethality**
- **Defensive Stand-off Space for Force Protection of the Amphibious Task Force**

1940

1950

1970

2006 +



LVT-2



LVTP-5



AAV-7



Water Speed: 5 Knots
Land Speed: 20 MPH
Firepower: .30 Caliber

5 Knots
30 MPH
7.62 MM

6 Knots
35 MPH
.50 Caliber /
40 MM Auto Grenade Launcher

25 Knots
45 MPH
30 MM Chain Gun
7.62 Coax

Leap ahead to 21st Century Technology

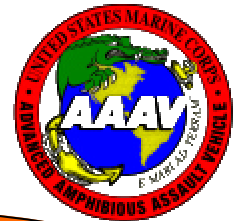


PROGRAM MILESTONES

- **Milestone 0 in 1988, Entered C/E Phase**
 - AAHV Concepts Developed by UDLP and GDLS
- **Milestone I in 1995, Entered Demonstration/Validation Phase (Product Definition and Risk Reduction (PDRR) Phase)**
 - AAHV Concept Approved As the Most Militarily Effective and Most Cost Effective
 - Down-selected to GDLS
 - GDLS had Winning AAHV Concept Design
- **DemVal Contract Awarded June 1996**
 - Required Extensive Requirements Analysis Through June 1998
- **Prototype 1 “Roll Out” - June 1999**
- **Commenced DT Testing - Nov 1999**
- **Prototype 1 Land Testing - Dec 1999**
- **Prototype 1 Water Testing - Jan 2000**
- **Prototype 2 “Roll Out” - July 2000**
- **Milestone II on 29 Nov 2000, Approval given to enter SD&D Phase**



OPERATIONAL REACH / TACTICAL FLEXIBILITY



Operational Maneuver:

- Transforming Littorals Water and Shores To Maneuver Space
- Expanded Operational Reach
- Unprecedented Tactical Flexibility
- Increased Force Protection
 - WMD...Joint Gun...Armor

High Water Speed & Rapid Seamless Maneuver Ashore



Enhanced Warfighting Capabilities:

- Four Times the Maneuver Speed on the Water
- Multiple Options / Enroute Decision capability for the Landing Force Commander
- Dramatically Increased Lethality (30mm, Fire on-the-move, All Weather/Day/Night)
- Eight Times the Stand-off Distance for Force Protection

Exploiting Threat Weakness

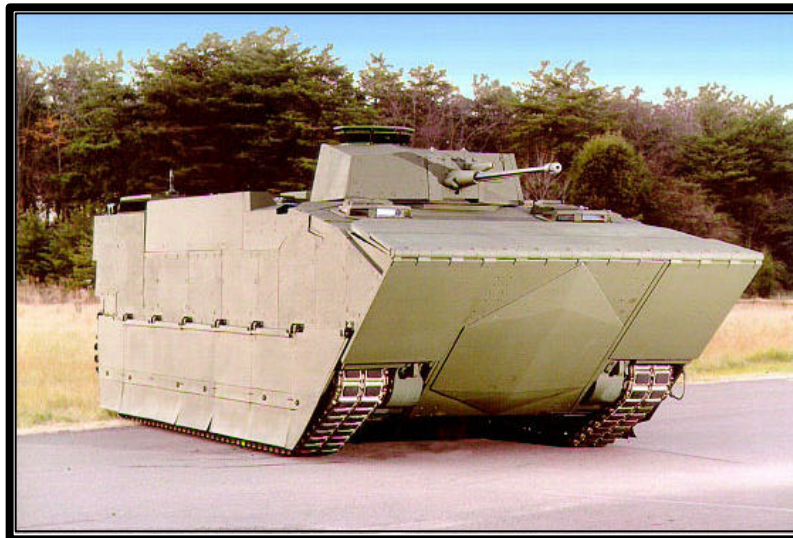


AAAV(P) SYSTEM DESCRIPTION



LETHALITY

- Destroy light armored vehicles
- 30mm Cannon
- Mk 46 Naval Weapon Station/Turret Capable of growth to Supershot 40mm



SURVIVABILITY

- Armor Protection Against Direct/indirect Fire
- Armor Is Modular, Ceramic on Composite & Ceramic on Aluminum
- Nuclear, Biological, Chemical Protected, Cooled Filtered Air to Crew & Troops

MOBILITY

- High Speed Transit From Ships to Inland Objectives
- Land Mobility Equivalent to the M1A1
- High Water Speed in Excess of 20 Knots
- Carries 20 Marines, 17 Combat Equipped Marines & 3 Crew

COMMUNICATION SYSTEMS

- C4I for joint operations
- Conform to Department of Defense Joint Technical Architecture
- Interoperable



AAAV(C) SYSTEM DESCRIPTION



C2 SYSTEMS

- Advanced Field Artillery Tactical Data System
- C2 Personal Computer
- Intelligence Analysis System
- Tactical Operations Combat

OPEN SYSTEMS

- Flexibility for Technology and Software Enhancements

NAVIGATION SYSTEMS

- Global Positioning System
- Inertial Navigation System
- Compass

LETHALITY

- 7.62mm, M240 Machine Gun

VEHICLE PERFORMANCE

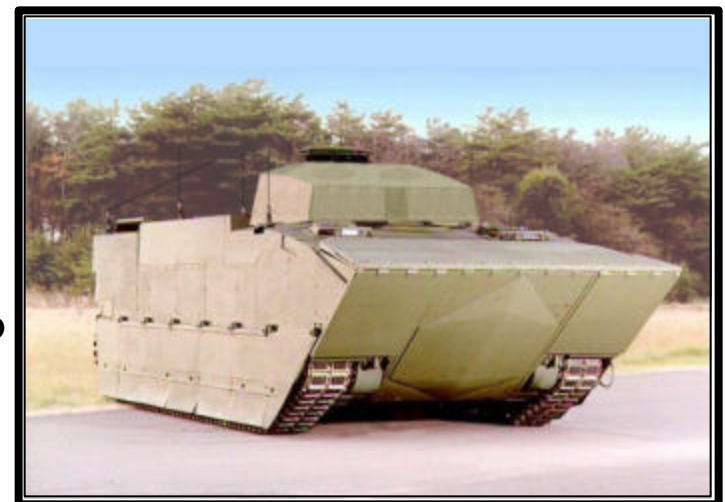
- Mobility, Armor Protection, Same as the AAAV(P)

COMMUNICATION CAPABILITY

- 6 Single Channel Ground and Air Radio Systems
- 2 Enhanced Precision Location Reporting System radios
- 2 Multi-Mode Multi-Band Radios
- Wireless Voice Intercom
- Migration to Joint Tactical Radio System planned for the future
- High Frequency Radio
- Interoperable

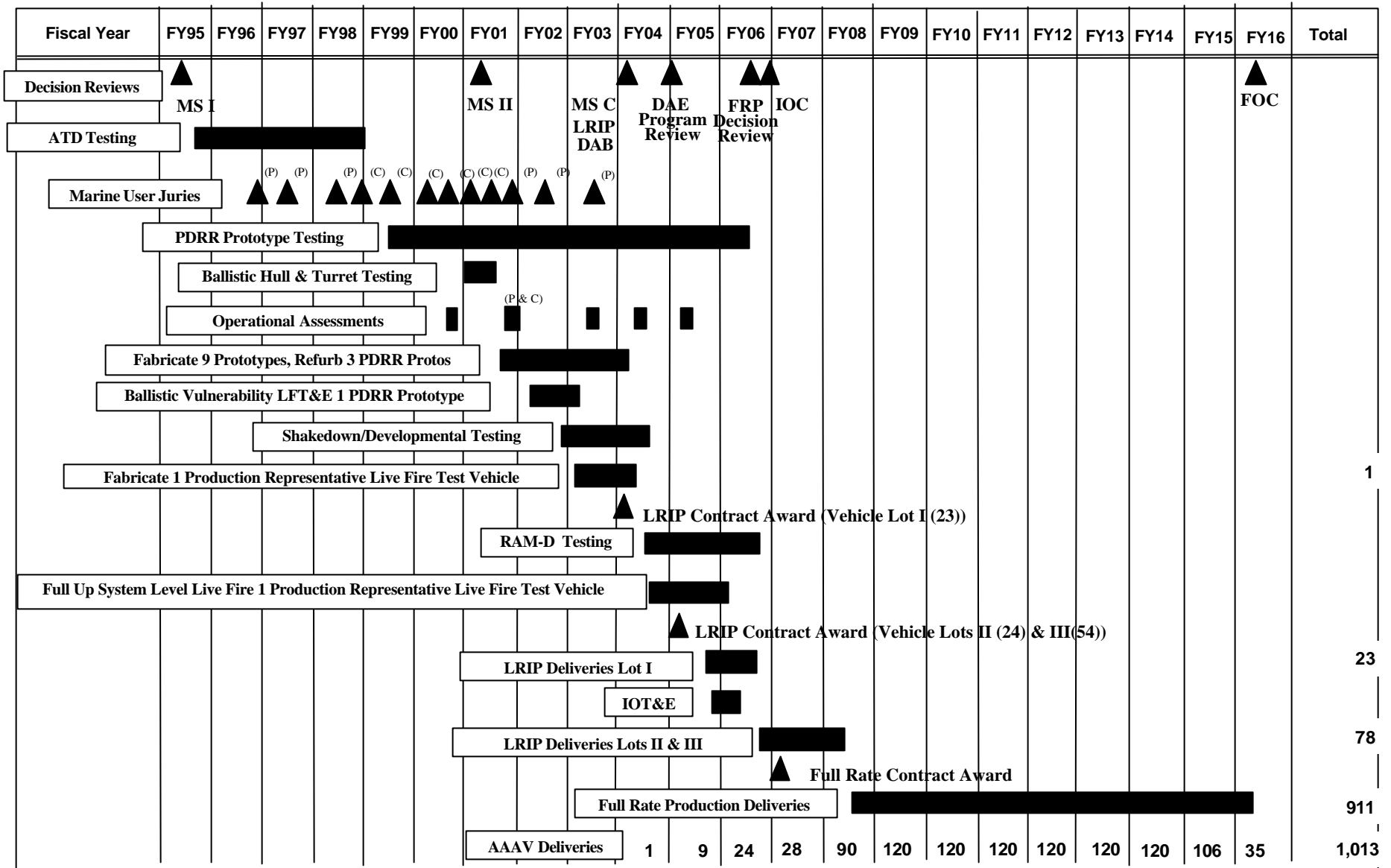
MOBILE COMMAND AND CONTROL

- Accommodates a staff of 6-9 Marines
- Vehicle Crew of 3





AAAV PROGRAM SCHEDULE





GOVERNMENT & CONTRACTOR INTEGRATION



**Command /
Management
Philosophy**

**Personnel
Organization /
Integrated
Product Teams**

Co-Location

**Information
Technology**

“The Pillars of Success”

DRPM AAA and GDAS Relationship



PILLAR # 1: COMMAND / MANAGEMENT PHILOSOPHY



- Program Manager “Sets the Tone” for the Relationship and Ensures that it Flows to Every Member of the Team
- An IPPD Process That’s Put Into Practice
- Establishment of Long-Term Commitments with our Industry Partner(s) (R&D, Production and Life Cycle Management) that Builds Trust and Confidence
- Use of Teambuilding (Joint Training and Education for Every Employee)
- Shared Success (We’re in it Together...Failure is **NOT** an Option)
- Open and Daily Communication in Both Directions



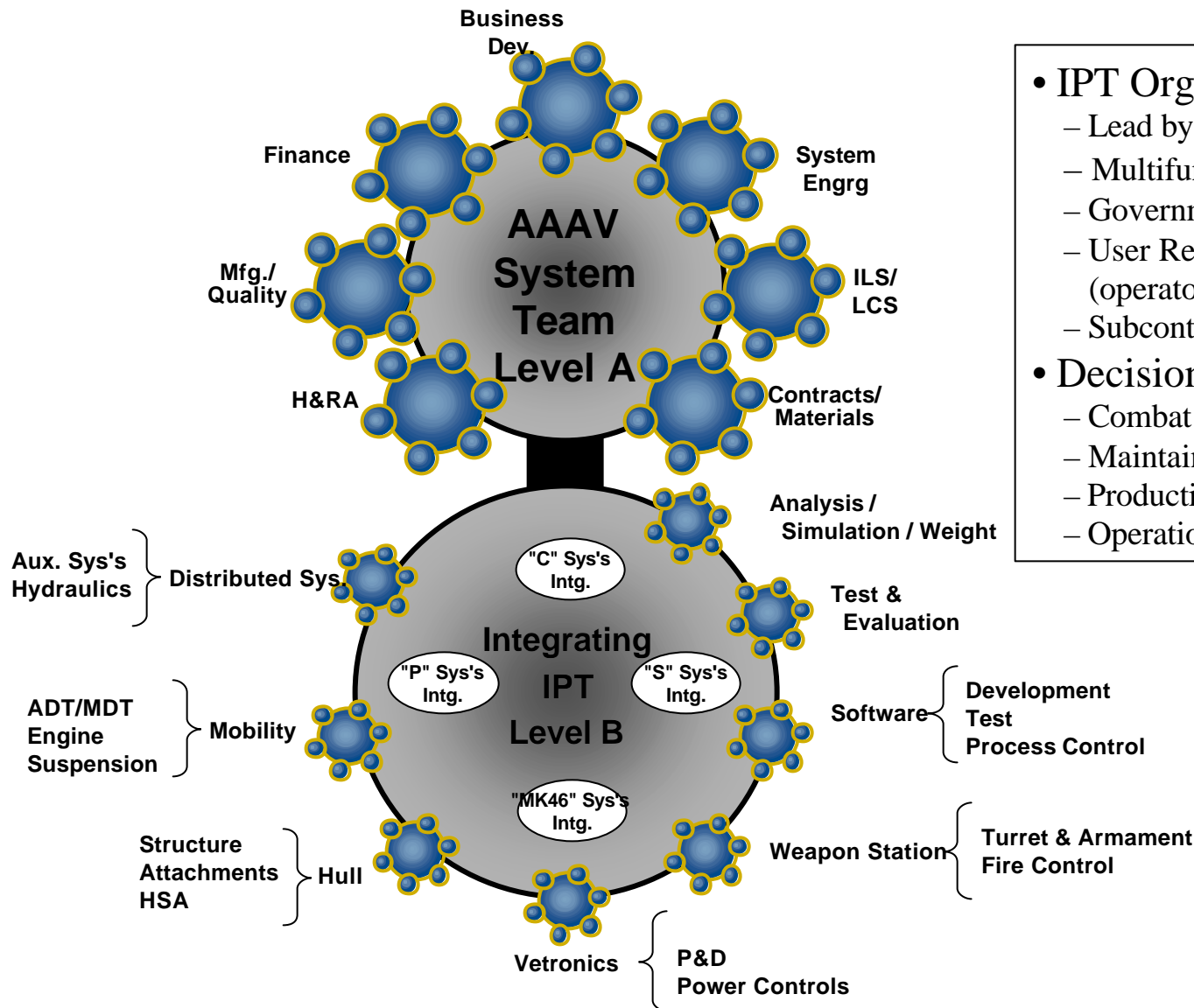
PILLAR # 2: PERSONNEL ORGANIZATION



- Based on the Program's Phase of Development
- Coordinated with the Contractor's Organization to Provide For Functional Interaction, Integration at Every Level, and Appropriate Management Oversight
- A Commitment to Integrated Product Teams, But...(Somebody Has to be In Charge)
- Use of a "Joint" Program Management Team
- Shared Use of User Representatives (DT Marines, User Juries, Expanded IPTs)
- Use of Informal Networks



PILLAR #2: INTEGRATED PRODUCT TEAMS



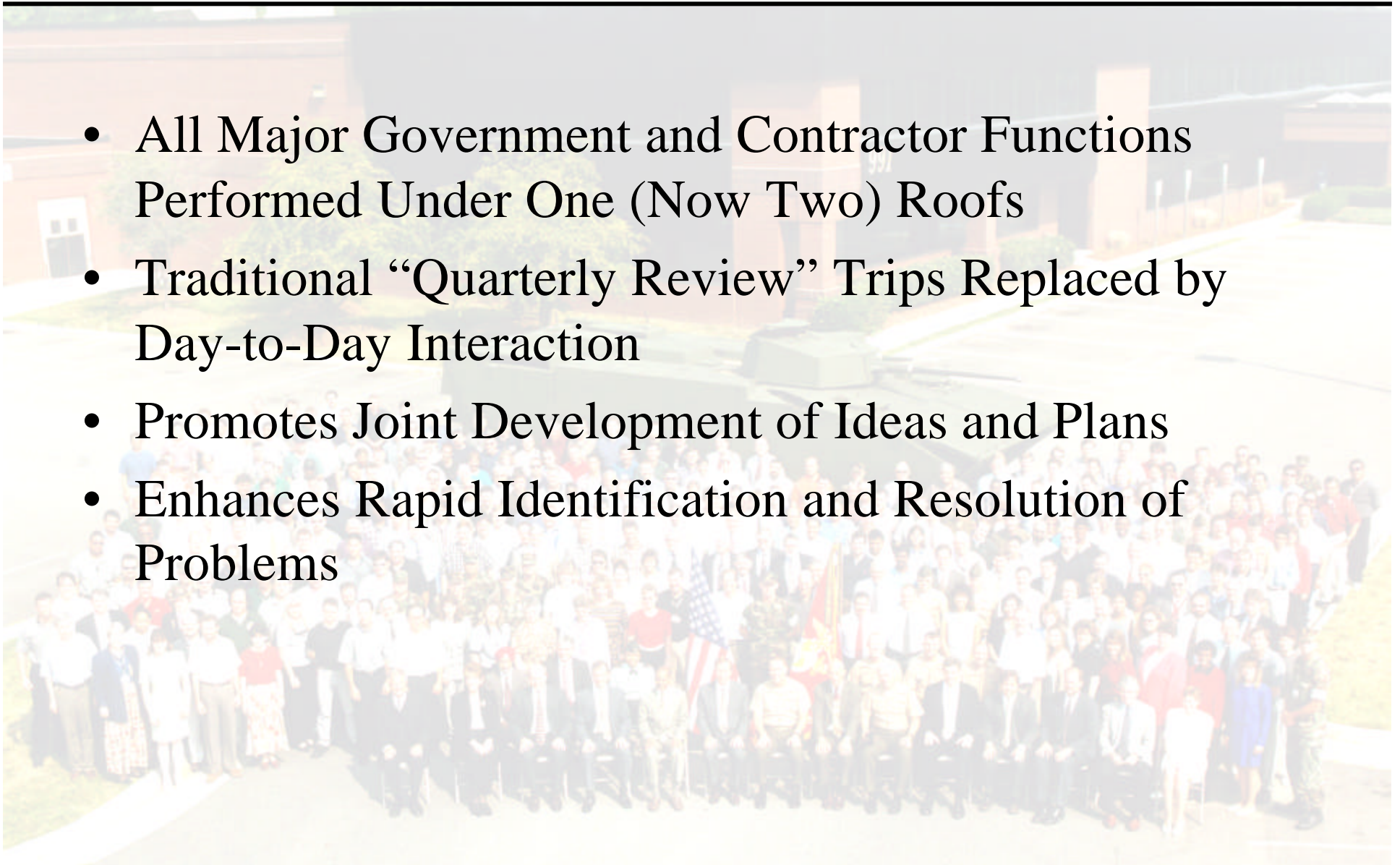
- IPT Organization
 - Lead by GDAMS
 - Multifunctional Representation
 - Government Representation
 - User Representation (operator and maintainer)
 - Subcontractor Representation
- Decisions Made Based On
 - Combat Effectiveness
 - Maintainability
 - Production costs
 - Operations and Support Costs



PILLAR # 3: CO-LOCATION



- All Major Government and Contractor Functions Performed Under One (Now Two) Roofs
- Traditional “Quarterly Review” Trips Replaced by Day-to-Day Interaction
- Promotes Joint Development of Ideas and Plans
- Enhances Rapid Identification and Resolution of Problems

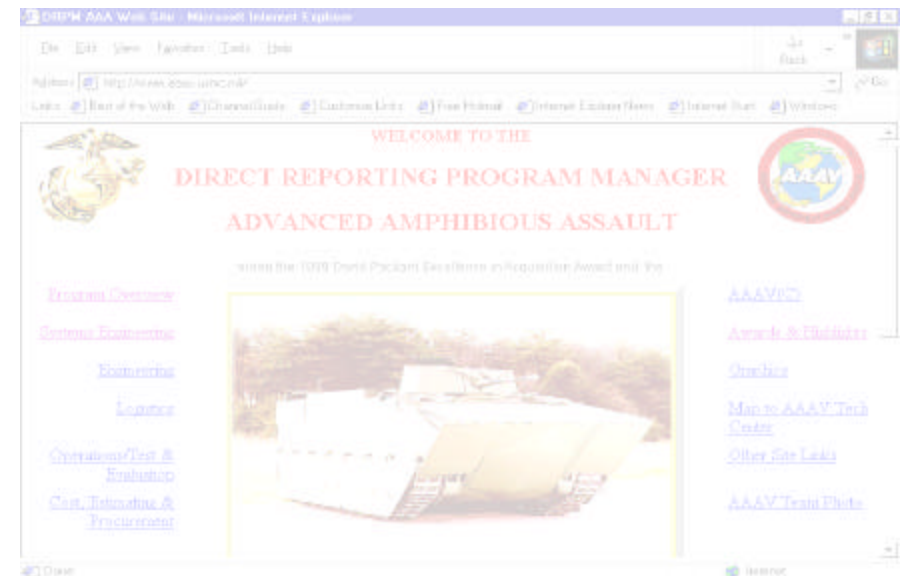




PILLAR # 4: INFORMATION TECHNOLOGY

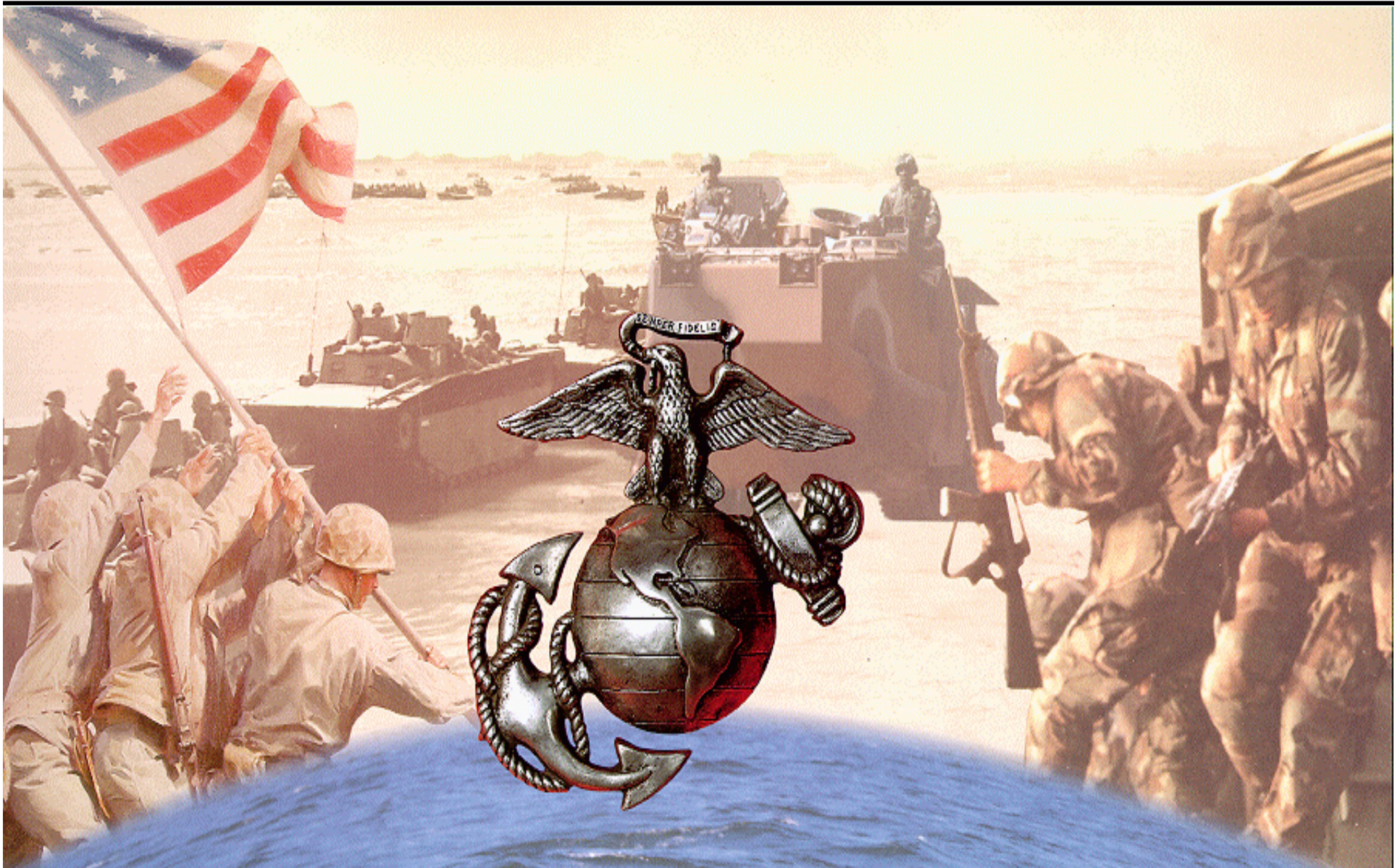


- Electronic Sharing of Data and Information
- Use of a Virtual Design Database
- Ability to Monitor Design Progress
- Shared Development and Publishing of Program Documentation
- Use of a Web Site





QUESTIONS





ON LAND





AT SEA





LETHALITY

